



BACK TO THE BASICS

Pre Teen Camp

John 3:16



Heat and Sun Injuries

The broiling sun, along with high humidity, make Texas an environmentally hazardous place to live during the late spring and summer months. Injuries from the sun can range from a simple, uncomfortable sunburn to a potentially fatal heat stroke. Everyone needs to be aware of the hazards of sun and heat and to take precautions against these hazards for themselves, their children, and their pets.

Although sunlight is necessary for human life and health, overexposure causes real damage to the skin. The effects of sun exposure are cumulative, so infants and children who are unprotected from the sun may receive enough skin damage to initiate skin cancer as adults. One serious childhood or adolescent sunburn will double the chances of developing skin cancer in adulthood. Children and infants need to especially be protected from overexposure to the sun because their skin is more sensitive to its effects and they are unable to avoid overexposure on their own. Infants under six months should not be exposed to direct sunlight at all. Everyone should use a sunscreen of at least Sun Protection Factor (SPF) 15 each time sun exposure is expected.

To get maximum protection from the sunscreen, it must be used correctly. The SPF is the multiple of the amount of time the sun would produce a sunburn in an unprotected individual. So, if a person would normally burn in 30 minutes of direct sun, an SPF 15 would provide protection for 15 times 30 minutes, or 7½ hours. Several things must be kept in mind. This is the amount of time before the skin burns. Ideally, a high enough SPF should be chosen to protect the skin from even a tan. Also, the sunscreen cannot be reapplied to lengthen the amount of time in the sun. In this case, after 7½ hours, reapplying the sun screen will not protect for another 7½ hours. Selection of the SPF depends on the skin type, intensity of the sun, and length of exposure planned.

The sunscreen must also be used correctly. It should be applied generously 30 to 60 minutes before the anticipated exposure to the sun and reapplied after sweating or being in water. Being near reflective surfaces, such as water, sand, or cement, will increase the sun exposure, so a higher SPF will be needed. Wearing hats, using shade, wearing light-colored or tightly-woven clothing, and avoiding the most intense sun from 1000 to 1600 hours (10:00 A.M. to 4:00 P.M.) provide additional protection. Sun exposure should also be avoided completely when taking medications that can increase the skin's sensitivity to sunlight (like some antibiotics). Teaching children to use sunscreens properly will enhance this habit and prevent the effects of skin damage in later years.

The summer sun can also cause heat injuries. Children are particularly susceptible because they have proportionally larger body surface area than adults, sweat less, and generate more heat during activities such as walking, running and playing. Heat injuries range in severity from heat cramps and heat exhaustion to heat stroke.

Heat cramps are muscular cramps occurring in the extremities, abdominal, and back muscles. The body temperature is normal. The cramps are caused by profuse sweating and resulting loss of salt and other electrolytes. This is easily treated by resting in a cool, shaded environment, massaging the affected areas, and drinking a commercially prepared electrolyte drink (like Gatorade). Children having heat cramp symptoms should be examined by a physician.

Heat exhaustion is characterized by weakness, dizziness, and nausea after a person has been active in a hot environment. Body temperature is normal or slightly elevated. Heat exhaustion should be treated immediately by resting in a cool, shaded environment, and drinking a commercially prepared electrolyte drink. Affected children should be examined by a physician.

Heat stroke is a medical emergency involving high body temperatures (usually above 104 degrees F), delirium and even coma. Other symptoms include hot, flushed, dry skin and having an irritable behavior. Treatment



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and even coma. Other symptoms include hot, flushed, dry skin, and having an irritable behavior. Treatment includes aggressive cooling (applying cold wet compresses, ice packs, and fanning), removal to a cool, shaded environment, and immediate transportation to the Emergency Room.

Some factors that increase the risk of heat injuries in children are recent illness involving fever, immunizations, and recent vomiting or diarrhea. Children are not reliable judges of their own discomfort, sun exposure, or the temperature of the environment. Adults must make this judgement for them.

Preventing heat injuries in children and adults is relatively simple:

1. Limit or avoid outdoor activities during the hottest part of the day (1000 to 1600).
2. Avoid direct sun exposure for prolonged periods.
3. Avoid sunburns since burned skin does not sweat or cool efficiently.
4. Drink plenty of cool fluids, avoiding caffeine and alcohol that will cause increased dehydration. Do not rely on thirst as a measure of dehydration – take frequent drinks throughout the day.
5. Encourage children to drink every hour during activities in the heat and sun. In addition to liquids you can give them popsicles and frozen juices.
6. Wear light-colored, tightly-woven, loose-fitting clothing when out in the heat.
7. Take extra precautions when under any medication that causes sun-sensitivity, drowsiness, disorientation, or dehydration.
8. Provide extra protection for individuals who have had heat injuries in the past; they will be more susceptible to recurring incidents.
9. Do not take salt tablets, although eating some salty foods can help. Eat a balanced diet, and drink electrolyte solutions before, during and after vigorous activities.

Pets need special consideration, too. They should have plenty of shade and always have access to an abundance of clean, fresh, cool water in a clean dish. Animals that are accustomed to colder climates and/or air conditioned homes will need to be kept indoors during the hottest parts of the day, or even all day. Ask your veterinarian for more information about how heat and sun effects animals (for instance, they sunburn, too), especially how it pertains to your specific pet's breed, age and health. Never leave pets or children in a parked car for any length of time in Texas, even with the windows down.